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WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK3WI: Sundays, 1100 hours EST, 7146 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK3WI. Intrastrate working frequency, 7125 Kc.

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VK4WI: Sundays, 0900 hours EST, simultaneously on 3500 and 14343 Kc. 3540 Kc. channel is used from 0815 hours to 1015 hours each Sunday for the W.I.A. Country hook-up. No frequency checks available.

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VK3WI: Sundays, 0930 hours WAST, on 7146 Kc. No frequency checks available.

VK1WI: Sundays, at 1000 hours EST, on 7146 Kc. and 144.5 Mc. No frequency checks are available.

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EDITORIAL



THE WHEELS OF CANBERRA

In May, 1953, we informed you that the Postmaster General's Department had agreed to the issuance of the Technician License, or as it is now known, the "Amateur Operator's Limited Certificate of Proficiency."

In December, 1953, we recorded our disappointment at the delay in completion of machinery necessary to fully implement the scheme.

Now, we are happy to announce that "the wheels of Canberra" have completed their slow revolutions and every last cog has been fitted into its assigned place. The result may be read in "Amendments to the Wireless Telegraphy Regulations CSR 1954 No. 50."

The self same document also requires future applicants for both "A.O.C.P." and "Limited A.O.C.P." to pay one pound examination fee.

An imposition that we know will not in anyway dampen the enthusiasm of the genuine candidate.

To turn to the bright side of the picture, we remind A.O.C.P. candidates who failed in Morse Code only since January, 1953, that they are now eligible for Limited A.O.C.P. and should make immediate application.

Many technically capable enthusiasts who lacked morse qualifications now have the opportunity to show their ability and keenness. Undoubtedly in the near future the v.h.f. bands will become densely populated by a new race of keen experimenters. It is from the ranks of these men that the C.D.E.N. will draw most of its personnel in future national emergencies. So give them every encouragement chaps!

FEDERAL EXECUTIVE

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1500 ohm resistance, one make circuit, very sensitive, operating on 41v. £1/10/- each

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Containing following Valves:
6—6SN7 1—6H6
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2—6L6
Brand new, £12/10/-

BY TOM ATHEY,* A.L.R.E.

Speech Amplifier and Modulator

Type of Modulation: Plate and Screen

As this unit is where the readability of your signal commences, good care in the beginning will help you in getting out a sharp, clear, intelligent signal.

The microphone is fed into a 6SN7 twin triode valve, each unit acting as a triode driver. Some people prefer to use a high gain pentode here, but I have found that low gain triodes in cascade give more stability and yet provide the same gain. Gain is controlled in the second stage. The output is then fed to a voltage driver stage which has a high frequency cut control included in the plate circuit. This is a simple means of lopping off the highs in the speech peaks and yet dispensing with the building of a clipper circuit.

The output of the driver is transformer coupled to a pair of 6M5 valves (6V6s will do). This transformer has a turn ratio of 5 to 1 and is a single ended primary to push pull secondary. This will provide sufficient lift to the power drivers. These valves are used as

* Ex-Instructor Qld. Division W.I.A. Classes;
41 Mountford St., New Farm, Brisbane.

triodes and the cathodes have a high resistance of 150,000 ohms in each leg of the cathode return.

Adequate voltage will be provided to feed the screens of the EL34 valves. You will notice that the EL34 grids also are connected to this source through 20,000 ohm resistors. It is perhaps as well to obtain two resistors of equal tolerance here to ensure a balanced feed.

The plates are connected to the modulation transformer and have a load match of 4,000 ohms at 375 volts on the plates. The cathodes of the modulation valves are earthed, consequently no bias is needed.

Decoupling networks are included in all speech amplifier h.t. supplies to ensure minimisation of hum or cross modulation.

The secondary of the modulation transformer has a splatter suppressor valve included. This is to suppress negative peak distortion and will assist in delivering higher audio content to the modulation of the final and resulting in higher output to aerial. Actually only 25 watts of audio are needed for 100% modulation, but by the inclusion of the splatter suppressor it is possible to "turn up the wick" without risk of causing splatter on adjacent portions of the band being used.

Switching details come under a separate section, consequently that function will be described in detail in that section.

A word here about wiring. Keep your filament wiring as close to the corner of the chassis as practicable. Hum

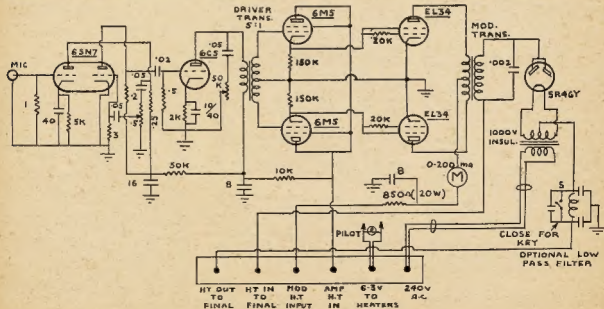
in a speech amplifier is most objectionable, but if great care is taken much of this nuisance can be avoided. Make all your grid leads short and shield them in the early stages, particularly in the microphone input circuit.

The values in the circuit are self explanatory and may be varied slightly without any serious loss.

A meter in the plate lead will give indication of voice swing and should be included as a must. Any meter indicating 0-200 Ma. will do and a mark can be made at which over modulation occurs and which should not be then exceeded.

The transformer for the splatter suppressor valve must have a high DC voltage insulation rating—say 1,000 to 2,000 volts. This transformer has the whole of the DC final supply impressed on it together with the audio peaks. Consequently it must be able to handle the high voltage without risk of breakdown.

• Please pay your Subscriptions PROMPTLY when due. Failure to do so may result in the loss of valuable issues of "Amateur Radio." High costs of production make it necessary to limit the number of extra copies printed each month.



A Great Circle Nomogram

BY A. K. HEAD,* VK3AKZ

IF you have not got a great circle map centred on your locality, then the need may arise to calculate the great circle bearing and distance of various places round the globe. A very good description of how to do this by trigonometry is given in the R.S.G.B.'s *Amateur Radio Handbook*. If you are not up on trigonometry, then here is a nomogram for doing the same thing.

Since it needs to be large for accuracy, instructions are given for drawing it yourself rather than printing a not-so-accurate one. Even if you are up on trigonometry, this nomogram will do it faster than you can calculate. In the R.S.G.B.'s *Handbook* it is estimated that it takes about 100 hours to do a complete great circle map. Most of this time would be spent in calculations. You could do it in about 10 hours if you use this nomogram, a more practical proposition.

CONSTRUCTION

The only materials you need are a ruler, pencil, and a sheet of graph paper. An ideal size for the graph paper is one on which you can draw a 10 inch square. This size will enable you to read the scales to one or two degrees. The more common foolscap sheet of graph paper will restrict you to a seven inch square, but this should be accurate enough for most purposes.

Anyhow, on the graph paper, draw the largest square it will take. The two sides and the top of the square will be the three scales of the nomogram. Then calibrate these by using the accompanying table. For the top side, start with 0 degrees at the left and work across to 180 degrees on the right. The table tells you where the calibration marks go as a percentage of the length of the side of the square.

For example, with a 10 inch square, the 60 degree mark will be 2.5 inches from the left hand corner, 90 degrees at 5 inches, 120 degrees at 7.5 inches, etc. Having gone from 0 to 180 degrees, you now put the alternative calibrations on each of the marks. As a check, notice that the two calibrations on each mark always add up to 360 degrees.

The left hand edge of the square is calibrated in the same way, using the same table, starting with 0 degrees in the top left hand corner, coming down to 180 degrees in the bottom left hand corner, then working back up to 360 degrees. The right hand edge of the square is calibrated the same as the left hand edge with 0 and 360 degrees at the top right hand corner and 180 degrees at the bottom right hand corner.

This completes the construction of the nomogram and it should now look like Fig. 1 (but with more calibrations, of course).



Fig. 1

HOW IT WORKS

First you need to know your own and his latitude and longitude. These only need to be to the nearest degree. Next turn the latitudes into co-latitudes. This is simply the number of degrees from the North Pole, whereas latitude is the number of degrees from the Equator. So for latitudes South of the Equator, add on 90 degrees to give the co-latitude. For latitudes North of the Equator, subtract the latitude from 90 degrees to give the co-latitude.

Having calculated your and his co-latitude, add them together and mark the corresponding point on the right hand scale. Then subtract the smaller of the two co-latitudes from the larger and mark the corresponding point on the left hand scale. Join these two marks with a straight line or just lay the ruler across them.

Next you work out the difference in longitude between yourself and him. If you are both in the same hemisphere (East or West), then you subtract the smaller longitude from the larger. If one is in each hemisphere, then add the two longitudes. Locate the corresponding point on the top scale, run straight down (using the lines of the graph paper as a guide) until you come to the ruler, then run sideways to the right hand scale and read the answer. This is his great circle distance from you. The answer is in degrees, but as each great circle degree is 69 miles, a simple multiplication gives you the answer in miles. Notice that since there are two calibrations to each mark you have two answers. Both of these are correct, the smaller being the short way round, the larger, the long way round.

Next we use the same nomogram to calculate his great circle distance. You have just found the great circle distance (the short way round). Leave this in degrees and look up your co-latitude again. Add one to the other and mark the answer on the right hand scale. Subtract one from the other and mark on the left hand side. Join these two points with the ruler.

Then mark his co-latitude on the right hand scale, go sideways from here across

to the ruler and then straight up to the top scale, which tells you the great circle bearing. Once again you have two answers, but unfortunately only one is right. The bearing is given on the 360 degree system with North 0 or 360, East 90, South 180, West 270. Common sense will tell you which of the bearings is the right one. This ambiguity is not really the fault of the nomogram as exactly the same thing happens when you work it out by trigonometry.

AN EXAMPLE

A picture is worth a thousand words, so here are two for good measure.

We will work out the great circle bearing and distance of Los Angeles (latitude 34N longitude 118W) from Melbourne (latitude 37S longitude 145E). First the co-latitudes. As Los Angeles is in the North latitude, its co-latitude is 90 minus 34, equals 56. Melbourne is South latitude, so its co-latitude is 90 plus 37, equals 127. Add these two co-latitudes together, giving 183 and mark this on the right hand scale. Subtract one co-latitude from the other giving 71, mark this on the left hand scale. Join 71 to 183 with the edge of the ruler.

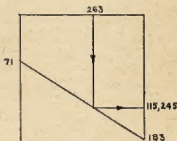


Fig. 2

Next we need the difference in longitude. As one is West and the other East, the difference in longitude is 118 plus 145, equals 263. Start at this point on the top scale, come down to the ruler and across to the right hand scale. The great circle distance is 115 or 245 degrees. Fig. 2 shows the lines on the nomogram. Turning these distances into miles, the short way round is 7,935 miles and the long way round is 16,905 miles.

Figure 3 shows the lines which are drawn in calculating the bearing. Add the co-latitude of Melbourne to the short great circle distance, 127 plus 115, equals 242, mark this on the right hand scale. 127 minus 115, equals 12, mark this on the left hand scale. Join 12 and 242 with the ruler. The co-latitude of Los Angeles is 56, start at this point on the right hand scale, come across to the ruler and up to the top scale where you read the great circle bearing as 65 or 295 degrees. Since Los Angeles is North East from Melbourne, the bearing to take is 65 degrees.

* Assistant Technical Editor, 3 Annadale Street, Kew, E.4, Victoria.

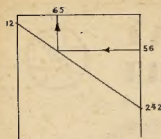


Fig. 3

THE GREAT CIRCLE MAP

The following advice on constructing a great circle map is adapted from The Amateur Radio Handbook, which is now unfortunately out of print.

Instead of calculating the data for specific towns, the entire graticule of the lines of latitude and longitude should first be constructed. This is done by calculating the bearings of the points at the cutting of the "tens" of longitude with the "tens" of latitude, i.e. 10, 20, 30, etc., East or West with 10, 20, 30, etc., North or South. A simplification could be made by the use of lines 20 degrees apart, but the choice lies with the reader and depends on the size of the map required. Using the 10 degree spacing, some 800 or 900 points would have to be calculated. By trigonometry this would take 80 or 90 hours, but can be done much quicker by the nomogram. For instance, one timesaver is that the distance calculations for the 36 points on each parallel of latitude can be done without shifting the ruler.

For the choice of a scale on which to base the map, 1,000 miles to the inch will give a map about two feet in diameter, which is a useful size. A good stout drawing paper should be used and mounted on a drawing board. A pair of beam compasses should be borrowed from a draughtsman, or made up from Meccano or wood. Draw the large circle

which is to contain the map and outside it another circle with say a half inch larger radius. Between these circles mark the points and degrees of the compass with the aid of a protractor. The usual scheme of having North at the top is probably the best.

The next step is to construct a scale about 13 inches long with a drawing pin at one end on which the scale will pivot about the centre of the map. The scale should be of stout material and it should be graduated uniformly from 0 to 180 degrees, starting at the drawing pin and finishing at a distance from the pin equal to the radius of the map. By the use of this scale the values of the distance can be plotted directly on the map without conversion to miles. Care should be taken to ensure that the edge of the scale forms a radius of the circle. The edge will have to stop short of the centre of the map to allow for the drawing pin, but it should be so constructed that the edge, if produced, would cut the centre of the drawing pin exactly.

The outer end of the scale can then be placed on the appropriate bearing calibration and the position of the point marked from the 0-180 degrees distance scale. It is advisable to do all calculations before starting to plot and then to plot the whole of one meridian of longitude and to connect up the points before proceeding to the next meridian, as the apparently strange positions of some of the points may otherwise cause some confusion.

Having constructed the graticule, the interesting part of the work is reached in the insertion of the outlines of the various continents and countries. An ordinary school atlas will supply the necessary information and the outlines can be followed from meridian to meridian or parallel to parallel as they may run. As an additional check, the positions of special capes, towns and other features can be calculated individually.

It is not expected that many Amateurs in South Eastern Australia would be interested in constructing a great circle map as published maps are available. But with VK land ranging from Cocos to Antarctica and up to New Guinea, it is felt that there are some who would be prepared to make this useful accessory to Amateur Radio. The writer would be pleased to hear from those who try, how long it actually takes to construct a map, and will answer any queries you may have.

AMATEUR BANDS AVAILABLE

*1.84—1.86 Mc.	1288—296 Mc.
3.5—3.8 "	1576—585 "
7—7.15 "	1,215—1,300 "
14—14.35 "	2,300—2,450 "
21—21.45 "	5,650—5,850 "
26.96—27.23 "	10,000—10,500 "
28—30 "	21,000—22,000 "
50—54 "	30,000 Mc. and
144—148 "	Above.

*Available for emergency network purposes only. Normal Amateur activities are not permitted in this band.

† Temporary allocations.

50 Mc. W.A.S.

Call	No. Ctr.	Call	No. Ctr.
VK1WJ	1	VK1WJ	1
VK1WV	2	VK1WV	2
VK1WY	3	VK1WY	3
VK1WR	4	VK1WR	4
VK1WL	5	VK1WL	5
VK1WD	6	VK1WD	6
VK1WP	7	VK1WP	7
VK1WR	8	VK1WR	8
VK1WT	9	VK1WT	9
VK1WE	10	VK1WE	10
VK1WA	11	VK1WA	11
VK1WM	12	VK1WM	12
VK1WL	13	VK1WL	13
VK1WD	14	VK1WD	14
VK1WP	15	VK1WP	15
VK1WR	16	VK1WR	16
VK1WT	17	VK1WT	17
VK1WE	18	VK1WE	18
VK1WA	19	VK1WA	19
VK1WM	20	VK1WM	20

DX C.C. LISTING

Call	No. Ctr.	Call	No. Ctr.
VK1WJ	1	VK1WJ	1
VK1WV	2	VK1WV	2
VK1WY	3	VK1WY	3
VK1WR	4	VK1WR	4
VK1WL	5	VK1WL	5
VK1WD	6	VK1WD	6
VK1WP	7	VK1WP	7
VK1WR	8	VK1WR	8
VK1WT	9	VK1WT	9
VK1WE	10	VK1WE	10
VK1WA	11	VK1WA	11
VK1WM	12	VK1WM	12
VK1WL	13	VK1WL	13
VK1WD	14	VK1WD	14
VK1WP	15	VK1WP	15
VK1WR	16	VK1WR	16
VK1WT	17	VK1WT	17
VK1WE	18	VK1WE	18
VK1WA	19	VK1WA	19
VK1WM	20	VK1WM	20

G.W.

Call	No. Ctr.	Call	No. Ctr.
VK1WJ	1	VK1WJ	1
VK1WV	2	VK1WV	2
VK1WY	3	VK1WY	3
VK1WR	4	VK1WR	4
VK1WL	5	VK1WL	5
VK1WD	6	VK1WD	6
VK1WP	7	VK1WP	7
VK1WR	8	VK1WR	8
VK1WT	9	VK1WT	9
VK1WE	10	VK1WE	10
VK1WA	11	VK1WA	11
VK1WM	12	VK1WM	12
VK1WL	13	VK1WL	13
VK1WD	14	VK1WD	14
VK1WP	15	VK1WP	15
VK1WR	16	VK1WR	16
VK1WT	17	VK1WT	17
VK1WE	18	VK1WE	18
VK1WA	19	VK1WA	19
VK1WM	20	VK1WM	20

OPEN

Call	No. Ctr.	Call	No. Ctr.
VK1WJ	1	VK1WJ	1
VK1WV	2	VK1WV	2
VK1WY	3	VK1WY	3
VK1WR	4	VK1WR	4
VK1WL	5	VK1WL	5
VK1WD	6	VK1WD	6
VK1WP	7	VK1WP	7
VK1WR	8	VK1WR	8
VK1WT	9	VK1WT	9
VK1WE	10	VK1WE	10
VK1WA	11	VK1WA	11
VK1WM	12	VK1WM	12
VK1WL	13	VK1WL	13
VK1WD	14	VK1WD	14
VK1WP	15	VK1WP	15
VK1WR	16	VK1WR	16
VK1WT	17	VK1WT	17
VK1WE	18	VK1WE	18
VK1WA	19	VK1WA	19
VK1WM	20	VK1WM	20

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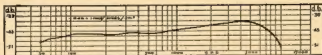
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Getting the Most Out of Your Receiver

A Few Hints on Proper Handling

ALTHOUGH Amateur Radio is generally considered to be a friendly hobby, one good way to get a punch in the nose is to tell a Ham he does not know how to get the most out of his receiver. In no uncertain terms he will tell you (before or after the punch—this varies with the individual) that he has had a Ham ticket for x years, and that if anyone can squeeze the last bit of usefulness out of the receiver, he can. Then he is likely to go on and say that there are some things that are wrong with his particular receiver, because it is a real dog that was designed by some self-styled engineers who were in reality idiots studying nights to become morons.

This article assumes that there are still a few non-belligerents who might be interested in getting the most out of their present receivers at no great cash outlay.

DESIGN FAULTS

Let's take a very common case, the one where the owner criticises his receiver because it has too much warm-up drift. (Actually, receivers are getting better in this department every year, but you still hear the criticism.) A very simple dodge is to prop up the lid an inch or so, with a match folder or other convenient spacer, to provide for better air circulation. The maximum operating temperature will be reduced, and so will the warm-up drift. This is true, of course, of only the solid-cover receivers—you won't improve the circulation much by propping up a cane-metal cover.

Another fault easy to find with a receiver is the location of the tuning knob—it's either too low or too high. The solution is simple if the knob is too low for you—prop up the receiver with books or a shelf of the proper height. (A shelf leaves a convenient cubbyhole under the receiver for log-book, call book and scratch pad.) If it's already too high, there isn't too much you can do, although some operators drop the rear of the receiver into the table so that the panel is sloping.

Some receivers come through with tuning knobs that are too small, but anyone who suffers with this very long isn't thinking down the middle—it's easy to replace the knob with a larger one of your choice.

Frequency calibration is something that two-dial (bandset and bandspread) receiver owners worry about unnecessarily (in our opinion). It is, of course, quite difficult to set up the bandspread dial to read accurately by setting the bandset dial to some predetermined mark, but it's a cinch to do it if you have a 100 or 1,000 Kc. standard around the shack. At least it's a cinch to set it up for the band edge you're working closest to, and that's all you have to worry about during any particular operating period.

If the receiver design is such that the bandset knob can get knocked out of adjustment (a frequent complaint), put a dial lock on it. Then when you set up the receiver on a band edge and lock the bandset knob, you have a well-calibrated receiver for that part of the band. If you do not want to drill any additional holes in the receiver panel, it is sometimes possible to mount the lock on a strip of metal that is fastened to the receiver by screws under the bottom of the receiver or under the locknut on the dial shaft bushing.

There are so-called design faults that can be overcome by digging into the set and changing it over, but this should be done only if you have experience and confidence with receivers. Even

as the tuning indicator. Leave the tuning alone and just touch up the i.f. trimmers for maximum S meter reading.

Many two-dial receivers can be improved in performance by aligning the front ends in the middle of the Ham band, letting the performance degrade if necessary outside these bands. All this means, of course, is peaking the r.f. and mixer stages while the receiver is tuned to a Ham band, and the instruction book will tell you where to find the trimmers. Use the capacity trimmers if the Ham band falls near the low-capacity end of the bandset condenser, and the inductance trimmers if the Ham band falls at the high-capacity end of the bandset condenser.

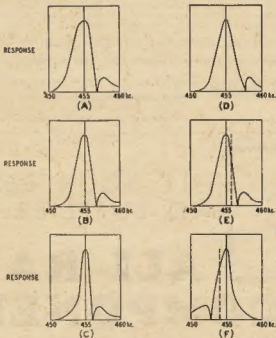


Fig. 1—showing how the selectivity of a crystal filter changes with the setting of the selectivity and phasing controls. As the selectivity is changed, the pass-band is made narrower, as indicated in A, B and C. The phasing control changes the position of the notch, as shown in D, E and F (selectivity same as in B). The relative location of the b.c. frequency is shown by the dashed line in E and F.

then an owner is often justifiably reluctant to work over a receiver because he is afraid he might impair its resale value in some way. But one thing that can be done without endangering its turn-in value is to make certain that the receiver is properly aligned, and peaked on the Amateur bands. The i.f. alignment should be checked to be sure that its peak coincides with the crystal filter frequency, but just touch up the i.f. trimmers and not those associated with the crystal filter (the modern ones are tricky and you can foul them up in a hurry). You do this by first tuning in a steady carrier (b.c. or frequency standard) with the crystal filter in the sharpest position and with the S meter

SELECTIVITY AND OVERLOAD

Now let's get down to some of those ideas we had at the start, when we got that punch in the nose. One big operator fault is in not knowing the limitations of a receiver, and as a consequence unjustifiably criticising a transmitted signal for a crime it didn't commit. Any superhetrodyne has limitations of selectivity and signal-handling capability, and you can't call yourself an operator unless you can recognise them.

Take front-end selectivity, for example. Unless you realise that your receiver can have "images" in the higher frequency ranges, you may be one of those who will tell us to get that blank-

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ety-blank short wave b.c. station out of the middle of the 14 Mc band, which investigation will show to be a powerful station around 15 Mc. riding through as an "image." (It has happened on several occasions, so don't think we are pulling this example out of the air.) You can identify these images easily by setting up the receiver for single-signal c.w. reception—an image will come in on the "wrong" side of zero beat. (If you don't know how to set up the receiver for single-signal reception, we'll get to it a little later.)

If you are troubled with images, do not add any more tubes ahead of your receiver, for reasons to be mentioned in the next paragraph. Your best bet is to get some more tuned circuits between the antenna and the receiver—often a simple antenna coupler (as described in the Handbook) will improve the image rejection quite noticeably.

Perhaps you have been criticising a powerful local Ham station for "birdies" throughout the band, when investigation would show that it is caused by overloading of your receiver in the front end or in the first i.f. stage. Check on the "birdies" by using a small receiving antenna and backing down on the "gain" control. We know of instances where some of the older receivers that had two r.f. stages ahead of the mixer were greatly improved by removing one of the r.f. tubes and plugging in a small (5 or 10 pF.) coupling condenser from grid to plate at the empty socket. The strong local signals cleaned up as if by magic, and one could copy signals a lot closer to them (frequencywise) than before.

In a case like this, where you are trying to copy a signal near a really strong one, you are usually forced to resort to manual gain control, since the a.v.c. system just can't handle the situation adequately. This is especially true if the interfering signal is pulsing or syllabic in nature, like c.w. or s.s.b. An ideal receiver would have all of the selectivity between the antenna and the first tube, but of course it just can't be built that way with present techniques. Another approach would be to use transmitting-type tubes as linear amplifiers up to the high selectivity portion of the receiver, but this hasn't found too much favor. Yet, it is therefore mandatory that you keep the signal levels down to some low value until you can get into the selective circuits of the i.f. amplifier. In any event, try handling strong signals with the manual gain control, and don't rely on a.v.c. under all circumstances when copying a.m.

C.W. SELECTIVITY

Some c.w. operators like selectivity, and others prefer to depend upon their ears. We aren't going to make an effort to change anyone one way or the other, but if you are one who doesn't use his crystal filter because he doesn't know how to, or by aren't alone, believe us—we heartily recommend that you spend a little time with it. All selectivity does for you is to make the selectivity "window" quite a bit narrower, so that fewer signals can get through with any one tuning-dial setting. The crystal "notch" (adjustable through the "phasing" control) is used to increase

1 "Let's Listen," "QST," March, 1953.

National Field Day 1954 Results

All sections of this year's National Field Day Contest were won by Harold White, VK2AHA, operating portable from Roadhead, seven miles south of Newcastle, with a power input of eight watts. Harold is one of our keenest and most consistent operators of portable equipment and his score this year shows what can be done with relatively low power equipment.

A new system of scoring was tried out this year in an endeavour to encourage the use of low power equipment. An examination of the logs submitted indicates that this was quite a successful experiment. Quite a number of stations operated with powers of under five watts and nearly all were under 10 watts. The corrected scores showed that the use of the inverse multiplier had the effect of equalising the scores of the higher scorers.

The change of date from the Australia Day week-end was apparently successful although it was unfortunate that the day selected clashed with the A.R.R.L. Contest. The date was decided on long before the announcement of the A.R.R.L. Contest was received and could not be changed at short notice.

Logs are still very much below standard and this makes the job of the Contest Committee harder than necessary. In an endeavour to assist contestants submitting logs for future contests the following faults are taken from the N.F.D. logs:—

★ Several contestants did not indicate whether contacts were made on phone or c.w. All were placed in open section.

the rejection on one side of zero beat, so that a c.w. signal tunes from a high beat note down to zero and comes up very weakly, if at all, on the other side. This is called "single-signal reception" If the b.f.o. is set improperly you will not get it well. The "selectivity" control selects a crystal-filter bandwidth for you, from a broad one to a sharp one, and you use the setting you like or that conditions call for. But you must remember one thing—the more selectivity you use, the more carefully you must tune, because a signal won't occupy as much space on the tuning dial with selectivity as it will without.

While listening to a particular signal, you can reject an interfering one by readjustment of the phasing knob if you cure to, or by switching to a more selective setting and retuning the receiver a bit, to put the interfering signal "out of the window." A common error is to reserve the crystal filter only for times when you run into QRM, but unless you know your receiver well, you run the risk of losing the desired signal when you switch in the crystal filter, and it is advisable to do all of your tuning with the crystal in and set for single-signal reception.

PHONE SELECTIVITY

The use of selectivity (crystal-filter and other) in phone reception is a whole article in itself, and will be discussed at some later date.

★ Most of the contestants did not take the trouble to work out their errors.

★ None of the logs submitted by multiple operator stations showed which operators made the actual contacts. Rule 18 allows Certificates to be awarded to each operator provided he made at least 25 per cent. of the contacts. As the logs did not contain the necessary information, these Certificates cannot be awarded.

We are now at the end of our Institute year and a new Contest Committee will be taking over. The job is not an easy one, but you can help them by following a few simple rules when making out your log.

★ Read the rules of the Contest carefully and include in your log all the information required.

★ If possible use the standard Institute Log Sheet.

★ Put your Call Sign, Name and Address on the first sheet of the log.

★ Total up your score and summarise the results on the last sheet.

★ State which section of the contest you wish to enter.

RESULTS

Open Section

VK2AHA	33.54 points
VK2ASW	29.8 "
VK2AMV	25.16 "
VK3AID	17.25 "
VK3ACE	8.3 "

Phone Section

VK2AHA	30.4 points
VK4TN	19.17 "
VK3LN	18.8 "
VK3RN	11.25 "
VK3YS	4 "
VK4SF	3.72 "
VK3JO	3.65 "
VK3DY	1.5 "
VK3JO	1 "
VK3SS	1 "

C.W. Section

VK2AHA	3.146 points
VK5RG	75 points
VK7DR	40 "
VK2ABT	35 "
VK5XK	25 "
VK2HZ	20 "
VK3GE	10 "

Check Log

VK2ALG/P

VK-ZL CONTEST CORRECTION

It has been noted that an error has been made in the scores published in the April issue. VK4RT is now the winner of this Section with VK4SF second. Apologies are extended to both competitors.

—Federal Contest Manager.

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FOR MARCH AND APRIL, 1954

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- NEW SOUTH WALES**
 2AN-R. Howland, 3 Balfour Ave., Caringbah.
 3FR-T. G. Donald, Lord Howe Island.
 20Q-H. Capsey, 35 Elliott St., Chester Hill.
 1AGJ-Griffith Radio Club, Station, Rio Theatre, Banna Ave. Griffith; Postal 43 Canal St., Griffith.
 2ALL-J. L. Leeds, 565 Fisher St., Broken Hill.
 2AOH-J. H. Williams, 38 Folding St., Fairfield.
 2AQW-J. S. Walker, 25 Shell Cove Rd., Neutral Bay.
 2AUF-C. I. Falconer, The Golf House, Terrigal Rd., Terrigal.
 2AUI-J. S. Innes, 120 MacPherson St., Cremorne.
 2AUP-K. Postler, 121 Brighton Bvde., North Bondi, Sydney.
 2AVC-E. C. Champion, 3 Crescent Ave., Ryde.
 2AVT-F. J. Fairleigh, 87 Bultze St., Dubbo.
 2AVS-E. Sundstrup, 10 Greenfield Ave., East Willoughby.
Victoria
 3QR-W. J. Mills, 62 McDonald St., Mordialloc.
 3AKX-D. C. Kirton, 3 Elide St., East Melbourne.
 3ASF-B. R. Forbes, 28 Knight St., Shepparton.
 3ASS-S. B. St. George, C/o 35H Transmitter, Lake Boga Rd., Swan Hill.
Queensland
 4CP-H. F. Watts, Cr. Kitchener and Herries Sts., Toowoomba.
 4DG-K. D. M. Grace, Winchu St., Quilpie.
 4GE-E. G. Ginn, 33 Warrington St., Hendra.
 4IB-D. N. Bismire, Willis Island.
 4Y-G. W. Young, 41 Bess St., Coopersoo.
 4YT-C. Patterson, Fig Tree Pocket Rd., Fig Tree Pocket.
South Australia
 3AF-A. S. Little, 32 Elder Tree, Dunstable Gardens.
 4GE-R. G. Pitts, 2 Beerworth St., Port Augusta.
Western Australia
 6W-A. F. Wreford, "Bill View," Frederick St., Camellie.
 6VK-V. J. Kliney, Station; C/o Station 6AM, Northam; Postal: C/o P.O., Northam.

Territories
 5HO-H. T. Overend, C/o R.T.C., Kavieng, T.N.G.
 5EP-R. Fleming, C/o Australasian Petroleum Co., Port Moresby.

ALTERATIONS

- NEW SOUTH WALES**
 2KL-187 Booker Road, Booker Bay.
 2LU-48 Hood Street, Yagoona.
 2NT-16 Rydalist Road, Cremorne.
 2OH-23 Bialkesley Road, South Hurstville.
 2QX-145 King Georges Road, Lakemba.
 2WI-C/o. O.T.C. Receiving Station, Berrigally.
 2YO-41 Boundary Street, Spion Kop, Felaw Mains.
 2ZR-35 Juno Parade, Bankstown East.
 2ADT-33 Rose Street, Inverell.
 2APQ-Station Bobbin Head Road, Turramurra; Postal: C/o Raymar Supplies Pty. Ltd., G.P.O. Box 378, Sydney, N.S.W.
 2AOU-25 Berrile Road, Beverly Hills.
 2APV-20 Melville Avenue, Strathfield.
 2ABS-34 Parramatta Road, Ashfield.
 2ART Post Office Residence, Raymond Road, Glenbrook.
 2ARA-Tuggerawang, via Wyong.
 2AUA-25 Talbot Street, Peakhurst.
 2AVB-C/o. Post Office, Stockinbingul.
 2AWZ-1b Wharf Road, Marracville.
 2AXG-33 Cliff Road, Wollongong.

VICTORIA

- 3CZ-Station: 2 Vincent St., East Malvern; Postal: P.O. Box 27, Warburton.
 3JR-78 Leicester Street, West Preston.
 3OK-Station: 36 Stawell Street, Sale, Postal: C/o Station 3G1, Sale.
 3QF-Cardiff Grange, Avonleigh.
 3QJ-17 Married Quarters, Balcombe Camp.
 3SL-Cambridge Road, Montrose.
 3SQ-35 Nepean Highway, Appenzelle.
 3WR-10 Restovier Parade, Mont Albert.
 3AAW-Melbourne Telecommunication Unit, R.A.A.F. Station, Canterbury.
 3AIB-Station, Hazelwood Road, East Warburton, Postal: P.O. Box 27, Warburton.
 3AJQ-101 Nepean Highway, Seaford.
 3ARF-19 Princes Street, Mildura.
 3ALE-72 Orr Street, Shepparton.
 3AMH-308 Eyre Street, Ballarat.
 3AMQ-13 Park Street, Parkville.
 3AMZ-1007 Nepean Highway, Moorabbin.
 3AOB-122 Hayes Street, Shepparton.
 3ARH-33 Hefty Street, Casterton.
 3ARB-61 Primrose Street, Essendon.

Queensland
 4CF-47 University Road, Mitchelton, Brisbane.
 4DC-123 Esplanade, Cairns.
 4KE-Edward Street, Charleville.
 4RA-Douglas Street, Brighton.
 4SD-Patterson Street, Wynnum North, Brisbane.
 4SG-South Street, Toowoomba.
 4SS-35 Wynyard Street, West End, Brisbane.
 4ZZ-House No. 531, Q.H.C., Doyle Street, Harlaxton, Toowoomba.

South Australia

- 3GH-15 Granley Avenue, Daw Park.
 3KU-1 Bond Street, Mount Gambier.
 3LR-Main Road, Backwood.
 3PW-13 River Street, West Marden.
 3SW-12 Silver Avenue, South Brighton.
 3TW-1 Jarding Street, Mt. Gambier.
 3WX-Radio Maintenance Section, C/o D.C.A., Oodnadatta.
 5XK-97 North Terrace, College Park.

Western Australia

- 6GA-54 State Street, Victoria Park.
 6SR-430 Great Eastern Highway, Midland Junction.

Tasmania

- 7AF-90 Hamphden Road, Battery Point.
 7FF-6 Forest Road, Launceston.
 7PJ "Hillmorton," East Hobson Road, Lindisfarne.

Territories

- 8AU-C/o R.T.C., Wewak, T.N.G.
 8WG-Torres Crescent, Port Moresby.

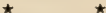
DELETIONS

- New South Wales:** VKs 3CN (now operating under VK4CP), 3ADA, 3AEI.
Victoria: VKs 3CF (now operating under VK3AUF), 3SB, 3SF (now operating under VK3SP), 3TP (now operating under VK4VP), 3YV, 3ADC, 3AFV, 3ASV (now operating under VK3AQW), 3AVK (now operating under VK3VK).
Queensland: VKs 4FO, 4HO (now operating under VK3SO).
South Australia: VKs 8DW (now operating under VK6IW), 8JQ, 8KI (now operating under VK3AUF).
Western Australia: VK6KD.
Territories: VK1AF (now operating under VK3AF).

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Amateur Radio, June, 1934

FEDERAL, QSL, and DIVISIONAL NOTES



FEDERAL

Fed. President: W. R. Cronow, VK3WG
 Fed. Secretary: G. M. Hull, VK3ZS, Box 291W,
 G.P.O., Melbourne.
 QSL Bureau: R. E. Jones, VK3RJ, 23 Landale
 Street, Box Hill, E. Hill, Vic.
 DX C.O. Manager: G. I. Morris, 99 Eighth
 Street, Parkdale, Vic.

NEW SOUTH WALES

President: Jim Corbin, VK3YV.
 Secretary: Harry Hicklin, VK3ACH, Box 1734
 G.P.O., Sydney.
 Meeting Night: Fourth Friday of each month at
 Science House, Gloucester Street, Sydney.
 Divisional Sub-Editor: Ted Whiting, VK3ACD,
 16 Loudon Street, Five Dock.
 QSL Bureau: J. E. Corbin, VK3YV, 72 Maloney
 St., Eastlake, Sydney (Inwards and Outwards).
 Zone Correspondents: North Coast and Table-
 lands: Noel Hanson, VK3AHB, Ryan Ave.,
 West Kempsey; Newcastle: Ron McD. Stuart,
 VK3AAJ, 48 Dunbar St., Sutherland; Middle
 and Lakes: Harry Hawkins, VK3YU, 27 Com-
 fort Ave., Cessnock; Western: W. R. Smith,
 VK3WJ, 100 Main Street, Newcastle; Central and
 Southern: Eric Fisher, VK3DJ, 3 Oxley St.,
 Warragong; St. George: Chas. Coyne, VK3YK,
 84 Carling Creek Rd.; Western: Alan Jones,
 Barry White, VK3AAB, 33 Flavelle St.,
 Concord.

VICTORIA

President: G. Dennis, VK3TF.
 Secretary: C. Gibson, VK3FO.
 Administrative Secretary: Mrs. G. Pickering,
 Law Court Chambers, 191 Queen St., Melb'ne.
 Meeting Night: First Wednesday of each month
 at the Radio School, Melb. Technical College.
 Divisional Sub-Editor: K. E. Pincoff, VK3JAF,
 14 Duncombe Ave., Ashburton, S.E.11.
 QSL Bureau: Inwards—Graham Roper, VK3ZS,
 26 Lucas St., South Caulfield, Vic. Outwards
 —Frank O'Dwyer, VK3OF, 190 Thomas St.,
 Hampton, S.7, Vic.
 Zone Correspondents: Western: T. B. Rodda,
 VK3JAT, Box 234, Warracknabeal, South
 Western; W. Wines, 11 Bedford St., Warram-
 bool, and E. Oodling, VK3ANQ, 2 Nelson St.,
 Warrambool, North Eastern: A. D. Buchanan,
 VK3YD, "Booncondah," Wabring, Far North
 Western: M. Folle, VK3GZ, 101 Lemon
 Ave., Mildura; Eastern: Leo Dwyer, VK3GZ,
 and John Battick; North Western: C. Cass,
 VK3ACE, Cuningham Ave., Birchup.

WESTERN AUSTRALIA

President: Harold Murphy, VK4HM.
 Secretary: Ern Moore, Box 638J, G.P.O.,
 Brisbane.
 Meeting Night: First Friday in each month at
 the Royal Geographical Society Rooms, Ann
 Street, City.
 Divisional Sub-Editor: J. T. Hope, VK4KL,
 Royal Parade, St. John's Wood, Ashmore.
 QSL Bureau: Inwards—J. Ellis, VK4JF, Wanda
 St., Buranda, Outwards—Miss Clair O'Brien,
 83 Jardine St., Stafford.

SOUTH AUSTRALIA

President: G. M. Bowen, VK5KR, Box 128K,
 G.P.O., Adelaide. Telephone: J 111.
 Meeting Night: Third Wednesday of each month
 at 17 Wymouth St., Adelaide.
 Divisional Sub-Editor: W. W. Parsons, VK5PS,
 10 Victoria Avenue, Rostrevor.
 QSL Bureau: Geo. Luxton, VK5RX, 8 Brook St.,
 West Mitcham, South Aus. (Inwards and Out-
 wards).

WESTERN AUSTRALIA

President: F. A. T. Tredres, VK8FT.
 Secretary: J. Mead, VK8JL, Box N1002, G.P.O.,
 Perth.
 Meeting Place: Perth Technical College, Ann
 Mounts Bay Road, Perth.
 Meeting Night: Third Tuesday of the month.
 Divisional Sub-Editor: D. E. Graham, VK8HK,
 110 Edinboro St., Mt Hawthorn.
 QSL Bureau: Jim Rumble, VK8RU, Box F519,
 Perth, West. Aus. (Inwards and Outwards).

TASMANIA

President: L. E. Edwards, VK7LE.
 Secretary: W. G. Tait, Box 371B, G.P.O. Hobart.
 Meeting Night: First Wednesday of each month
 at the W. A. Club Room, 141 Liverpool
 Street, Hobart.
 Divisional Sub-Editor: L. E. Edwards, VK7LE,
 38 Strickland Ave., Hobart.
 QSL Bureau: G. M. Barker, VK7BT, Box 371B,
 G.P.O., Hobart. (Inwards and Outwards).
 Zone Correspondents: Northern: M. A. Chaplin,
 VK7KA, 30 Trevail Rd., Launceston; North
 Western: R. K. Wilson, 11 Cunningham St.,
 Burnie, Tasmania.

FEDERAL

LIMITED A.O.C.F.

Under the heading "New Deal For Radio
 Mums" in the daily press on 7th May, Mr.
 Anthony, Postmaster-General, announced
 amendments to the Wireless Telegraphy Regu-
 lations to allow the issue of licences to ap-
 plicants who pass the theory and regulation papers
 of the Amateur Operator's Certificate of Pro-
 ficiency, but who do not sit for the usual more com-
 plex section of the examination. The age limit
 for the Amateur examination—either normal A.O.C.F. or the new Limited
 A.O.C.F.—had also been reduced from 18 years
 to 16 years, Mr. Anthony said.

Readers will recall reference to both these
 matters in these columns during the past year.
 Once again, by virtue of unity of the Amateur
 movement, the Wireless Institute of Australia
 has been the representative that brought about
 both privileges. The issuance of the Limited
 A.O.C.F. has been somewhat delayed by the
 necessity for an amendment to the Regulations
 under the Wireless Telegraphy Act, but is
 gratifying to know that applications for the
 license can now be made by those who have
 passed the examinations in theory and regula-
 tions.

Under the regulations covering the issuance of
 this new license, licensees are limited to opera-
 tion in the regular Amateur frequency alloca-
 tions from and including the 14 Mc. band.
 However, any future date the Limited
 license holder may obtain the full A.O.C.F.
 qualification by merely sitting for and passing
 the Morse code test.

FEDERAL CONTESTS COMMITTEE

Under the Federal policy of forming the Fed-
 eral Contests Committee in other than the
 Victorian Division with a view to giving the
 other Divisions an opportunity to gain expe-
 rience and participate in Federal activities to
 some extent, the New South Wales Division
 has successfully completed the operation and or-
 ganisation of Federal Contests for the past few
 years. Although under changing administration
 that Division the members of the Committee
 changed during its term, it carried out the
 Contest activities in fine style and deserve the
 thanks of the Federal Council.

To relieve the New South Wales Division,
 the Victorian Division has now accepted the
 responsibility of operating the Federal
 Contests for the ensuing year. There is no
 doubt that this Division will do an excellent
 job, of conducting this part of the Federal
 administration.

MEMBERS OF ADVISORY COMMITTEES FOR 1954

The following Amateurs have been appointed
 to the Amateur Advisory Committees operating
 in each State of the Commonwealth to keep
 watch of the Amateur bands in an advisory
 capacity and draw the attention of licensed
 operators to any operating practice and
 modes of transmission. The activity of the
 Advisory Committees has been the means of
 obviating official schemes by the Postmaster-
 General's Department, Wireless Branch, in re-
 lation to breaches of the Regulations governing
 the operation of Amateur Wireless Stations
 where such have been committed by the
 operator of a station. The co-operation of
 all Amateurs will be the means by which our
 bands can be kept clear of "law breakers" and
 spurious radiations.

New South Wales

Mr. G. T. Bruce, VK3GT.
 Mr. J. A. Lindsay, VK3AKR.
 Mr. O. R. Pearce, VK3IY.
 Mr. J. C. Pinner, VK3JR.
 Mr. L. H. Taylor, VK3CL.
 Mr. V. H. Wilson, VK3VW.

VICTORIA

Mr. R. A. C. Anderson, VK3WY.
 Mr. A. L. Brehaut, VK3SB.
 C. Gibson, VK3FO.
 Mr. G. W. Manning, VK3JX.

Queensland

Mr. J. C. Fries, VK4AF.
 Mr. G. Harman, VK4XW.
 Mr. H. T. Hewitt, VK4PD.
 Mr. L. E. Mallinson, VK4LM.
 Mr. J. E. Pickles, VK4FP.
 Mr. H. Scholz, VK4RI.

South Australia

Mr. C. A. Doddridge, VK5CD.
 Mr. J. P. Rosevear, VK5KE.
 Mr. H. K. Stacey, VK5XA.
 Mr. C. D. L. Wilbur, VK5GGL.
 Mr. D. R. Wilbur, VK5BY.
 Mr. G. E. Wensche, VK5GN.

SILENT KEY

It is with deep regret that we
 record the passing of:—
 VK5BF—Francis George Miller,
 April, 1954.
 Ex-VK7CS—Cecil Scott, March,
 1954.

Western Australia

Mr. D. E. Graham, VK6HK.
 Mr. J. C. Hoar, VK6NR.
 C. Lambie, VK6PL.
 Mr. H. T. Mulder, VK6MK.
 Mr. N. F. Ogden, VK6RU.

Tasmania

Mr. T. A. Allen, VK7AL.
 Mr. L. W. Edwards, VK7LE.
 Mr. C. Lambie, VK6PL.
 Mr. L. E. Jensen, VK7LJ.
 Mr. K. A. Johnston, VK7XK.
 Mr. W. W. Watson, VK7YV.

SWEDISH AWARD

- The Vasteras Radio Club (Sweden) has
 decided to issue the W.A.V. (Worked All
 Vasteras) Certificate, obtainable by licensed
 Amateurs everywhere in the world.
- The Certificate is based on contacts with
 Amateurs in Vasteras after 31st December, 1953.
- Participants outside Europe (DX) shall,
 with QSL or other written verification, prove
 contacts with at least two Amateurs in
 Vasteras, equals 8 points.
- Participants in Europe will have to prove
 by QSL cards or other written evidence that
 they have collected 10 points by working at
 least 10 Amateurs in Vasteras.
- Applicants of the W.A.V. in LA-01-OZ-
 EA-01 will have to prove by QSL or other written
 evidence that they have collected 20 points
 by working Amateurs in Vasteras.
- Each contact with Amateurs in Vasteras
 by a band with a call sign ending in 01
 station may only be contacted ONCE on each
 band.
- Applications for W.A.V. may be sent to
 "W.A.V. Manager," SMSV, Emmausgatan 6 E,
 Vasteras, Sweden. Each entry must include
 QSLs or written verification on the claimed
 contacts, as well as a list of the contacts,
 call, frequency, date of QSO, CW or Phone.
- Cost: Four International Reply Coupons.

FEDERAL QSL BUREAU

RAT JONES, VK8JL, MANAGER

Harold Webber, VK8JL, is at present on
 route to the U.S.A. on a business trip. Later he
 will visit the U.S.A. He plans to make a few
 Ham visits in both countries as time permits.
 Clipperaters sponsored expedition to the
 Clipper Island was treated to a rough haul
 by the elements. En route to Clipper, they
 ran into heavy seas which blew away their
 sails and ultimately one of them went overboard.
 They had been working hourly skeds on 14100
 Kc. on the way down and quite a few VK
 stations made the contact with the ship. With
 things got bad they sent out a blast for help

and a Medicina station owned by General Najera, of the Mexican Army, heard their call and arranged for help to be sent. Finally they managed to get their other diesel going and made Clipperton, the weather still being heavy with big seas and gales. They were unable to land sufficient petrol to keep their power supply generating for as long as they wished with a result that the contacts made with their station POBAJ were not as numerous as would otherwise have been. The above has been pieced together from tubs supplied by WACC, VK5BO and VK3CX.

The Colombian Radio Society sponsored an expedition to the Desde Archipelago Colombiano de San Andres from 4th to 9th May. The expedition, which was allotted the prefix HK 870, was scheduled to use the 10, 20 and 40 m bands. The Archipelago is situated in the Caribbean Sea near the coast of Nicaragua. Anyone who contacted the expedition will receive a special certificate on application to the Society.

VS1FT, Colin Turner, of 1 Polden Court, Jalan Kayu, Seletar, Singapore, is seeking VK QSOs on any M. He will QSL all contacts or reports.

The many friends of Major Ken Ellis, DL3KE, and holder of 14 other Amateur call signs during the past nine years, will be interested to learn that he is leaving the Army in June and will then take himself a wife.

XINP active on 14 Mc. during April with a bad note, gave various QRTs off the Australian coast. Claimed he was on a ship bound from Australia to the Orient and neither desired or would send QSLs. Later advices show him giving his name as "Fag" and requesting QSLs via VK9YU. It is "London to a brick" on Alan VK9YU disclaiming all knowledge of his identity.

Treb BR5R.08 has received the following from ZB1K. "Most ZB1 stations are operated by Service personnel whose stay at Malta is limited." (My own son has been there 18 months and no relief in sight—nothing limited about that, hi—VK3R5.) ZB1K is a permanent Maltese resident and suggests it is better to send cards for unlisted ZB1 stations to him for relay as he "keeps track" of all the ZB1 stations. His full QTH is Bob Galea, Cien Gales, Railway Road, Birkirkara, Malta.

From the same source comes, "ZB1AUV is ex-KABQ, IREZ, HAF and COADV. VS1YN is a Baron, a BR, and a Lt-Col., as well as being ex-AC1YN, G5YN, VU2YN and LASYC."

VSMA8 at Aden, is ex-GZEMU and is due to return to England in September next. Treb finally won a card out of VPSAK. He wore him down as he did AC1YN. Treb, like the Mounties, always gets his card.

NEW SOUTH WALES

The Annual General Meeting of the N.S.W. Division was held on the 24th April at Science House. The meeting was attended by a large group of members and was opened a little late by the President, Jim Corbin, 2YVC.

Owing to the lack of further nominations for Council, the following five members of Council were re-elected, J. Corbin, 2YVC, G. Bruce, 2GT, W. Lewis, 2YB, D. Pollard, 2ASW, S. Burke, 2EL. Two members remain to be co-opted to Council for the ensuing year.

Following on a discussion on the desirability of employing a paid Secretary for the Division, H. Piddell, 2ZCH, volunteered to act as Hon. Secretary for 1954, and S. Burke, 2EL, decided that he would act as Hon. Treasurer for as long a period as he may be available.

There was a considerable amount of comment on the various aspects of the Institute's functions, and the President appealed again for any volunteers to assist in the work of the Institute in any way possible. It was pointed out that the Division will need many helpers during the year to take care of the various activities planned, so any members, and there must be many, are invited to contact any member of Council and give offers of assistance.

SOUTH WESTERN ZONE

Bob 2XP at Dalton is active on 40 and 80 m, using an AT3 with controlled carrier, generator power. A new one in the zone is Harry Hilder, 2AFT, from near Griffith. I have it on good information that Harry was a pre-war operator in the days when they used 4Es in the p.s. with the full 150 volts on the plate! Harry has recently moved down from Bourke and hopes to be on the breeze from Griffith in the near future.

2PL reports that the Griffith Radio Club has been issued with a license to operate a tx at the Club Rooms, so all are requested to listen and call when the call sign comes along. Don 2RS at Albury is active on 80 m, still on QRP while waiting for the ac to be hitched up to his QTH. Ray 2APZ out Lesion way is heard occasionally on 40 and 80 m, still struggling with the AT3 for 20 m. Ross and Geoff, 2PN and 2HQ, at Tumby, not heard for some time, must be turning up some little thing down there. Remember fellows YOU are ALL welcome at the same hook-up on 80 m at 1800 hours on Wednesday night, make it a must.

NORTH COAST AND TABLELANDS

Following on the recent successful Convention at Urunga, which was attended by many Hams from all parts of N.S.W., and for that

matter other places, activity on the North Coast is for the most part rather quiet. 2PA and Zone Officer 2AHJ have been testing their respective beams and have worked out the polar diagrams for same, conclusions drawn—some are better than others. 2BK appears to be rather quiet, what about some acme to Sydney Norm? That goes for all you chaps in the zone also. Crif 2XO is on a Cook's tour at present. VMAE and 2ABT have spent quite a bit of their time in the zone recently and visited quite a few of the boys. 2PA had to put him in a bath to get the mud off him before he could find out who he was. The same Pete and 2AQI of Armidale are working akeds on 8 m.

The Inverell boys, aided and abetted by 2ADT, have gone all V.H.F. Amateur Radio has received a new lease of life since Jack got organised up there. 2AR had some vivid flood experiences—6 feet in the shack. The Darling Downs boys got together to get Len a new power supply, nice work chaps. 2AEY is picking paspalum seed, no oil nutum 2AHH was second in VK-UL Contest in the c w section, and third in the phone section. Don't forget the weekly zone hook-up boys.





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900-22	2,500, 5,000	2, 3.7, 8, 12.5, 15	1	*40-15,000	15	Single 807, EL34, etc., to V.C.	57/6
896-9	8,000, 10,000	2, 3.7, 8, 12.5, 15	1	30-15,000	15	P.P. 6V8Gs, A or AB1 to V.C.	62/6
897-9	8,000, 10,000	100, 125, 160, 250, 500	1	30-15,000	15	P.P. 6V8Gs, A or AB1 to Line	62/6
783-9	3,000, 5,000	2, 3.7, 8, 12.5, 15	1	40-20,000	15	P.P. 2A3s, A or AB1 to V.C.	62/6
809-26	500	2, 3.7, 8, 12.5, 15	1	50-20,000	15	Line to Voice Coil	42/6
870-26	10,000	2 or 8	1	*20-20,000	**6	P.P. 6V8Gs or 807s as Triodes	57/6
871-9	10,000	2 or 8	1	*20-20,000	12	P.P. 6V8Gs or 807s as Triodes	81/-
872-9	10,000	3.7 or 15	1	*20-20,000	12	P.P. 6V8Gs or 807s as Triodes	81/-
891-22	6,800	83, 100, 125, 160, 250, 500	1	50-12,000	35	P.P. 807s, AB1 to Line	82/6
892-23	3,200	50, 62, 83, 125, 250, 500	1	50-12,000	55	P.P. 807s, AB2 to Line	97/-

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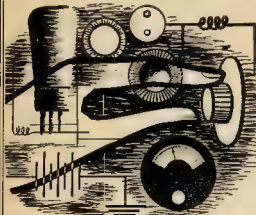
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0-20 Volt DC	14/11
0-40 Volt DC	14/11
0-2.5 Amp. RF	7/11
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C/W Coupling and 1 Inch Knob

4 Inch	5/9	8 Inch	7/6
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"THORENS" Three Speed Gramo Motors
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Cat. M111: Rubber-encased version of M110 with shielded cable, £14/1/-.



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Cat. M110: As M1000 but with highly plated shield, £1/18/6.



Cat. M100: For use as Insert or Microphone; plated brass grill, £1/12/11.



Cat. 501: "Ball" type, fixed mounted, Crystal Microphone, £4/16/1.



Cat. 101/V: Cat. 101 with volume control, £1/10/2.



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